

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1-11. (Canceled).

12. (Currently Amended) A modulation apparatus comprising:

a modulator that modulates a frequency converted signal of a frequency of a reference signal by a first baseband phase signal, and generates a modulated signal;

a phase comparator that finds a first phase distortion between a phase of the modulated signal and a phase of the reference signal;

a voltage control oscillator that generates an oscillation frequency as a modulated output signal, the oscillation frequency being determined by a control signal indicating the first phase distortion ~~found in the phase comparator~~;

a frequency converter that converts a frequency of the modulated output signal generated in the voltage control oscillator, and generates the frequency converted signal;

a demodulator that demodulates the modulated output signal generated in the voltage control oscillator and generates a second baseband phase signal; and

a compensator that finds a second phase distortion between the first baseband phase signal and the second baseband phase signal, finds a constant using the second phase distortion and one of a magnitude of a first frequency change and a magnitude of a phase change between adjacent data found based on the first baseband phase signal, finds a third phase distortion using

~~the constant and the magnitude of the phase change between the adjacent data found based on the first baseband phase signal and beforehand compensates the third phase distortion with respect to the first baseband phase signal beforehand compensates a phase distortion between the first baseband phase signal and a second baseband phase signal that is generated by demodulating the modulated output signal with respect to the first baseband phase signal, based on a magnitude of a phase change between adjacent data of the first baseband phase signal and a predetermined constant.~~

13. (Currently Amended) The modulation apparatus according to claim 12, wherein the compensator transforms the magnitude of the phase change into a magnitude of a second frequency change in predetermined time, and finds ~~beforehand compensates~~ the third phase distortion using ~~with respect to the first baseband phase signal based on~~ the magnitude of the second frequency change and the constant.

14. (Currently Amended) The modulation apparatus according to claim 13, further comprising:

a storage that stores the constant for the predetermined time, which is obtained by ~~dividing the phase distortion by the magnitude of the frequency change, wherein:~~

the compensator finds ~~obtains~~ the third phase distortion using ~~by multiplying~~ the magnitude of the second frequency change and by the constant stored in the storage ~~and beforehand compensates the obtained phase distortion with respect to the first baseband phase signal.~~

15. (Currently Amended) The modulation apparatus according to claim 13, further comprising:

a storage that has a table storing phase distortion selection information that associates a ~~the~~ magnitude of a ~~the~~ frequency change with the constant, wherein:

the compensator ~~finds~~ obtains the third phase distortion by selecting ~~multiplying~~ the constant ~~selected~~ by referring to the phase distortion selection information using the magnitude of the second frequency change and by using the selected constant and by the magnitude of the second frequency change and beforehand compensates the obtained phase distortion with respect to the first baseband phase signal.

16. (Canceled).

17. (Currently Amended) The modulation apparatus according to claim 12, wherein the ~~further comprising a demodulator that generates the second baseband phase signal and demodulates a received signal~~ in addition to generating the second baseband phase signal.

18. (Previously Presented) The modulation apparatus according to claim 12, wherein the modulator modulates a carrier signal, the carrier signal being the frequency converted signal, using the first baseband phase signal compensated by the compensator, and generates the modulated signal.

19 and 20. (Canceled).

21. (Previously Presented) A communication apparatus comprising the modulation apparatus of claim 12.

22. (Currently Amended) A modulation method comprising:

modulating a frequency converted signal of a frequency of a reference signal by a first baseband phase signal, and generating a modulated signal; and

finding a first phase distortion between a phase of the modulated signal and a phase of the reference signal;

generating an oscillation frequency as a modulated output signal, the oscillation frequency being determined by a control signal indicating the first phase distortion found;

converting a frequency of the modulated output signal generated, and generating the frequency converted signal; and

~~beforehand compensating a phase distortion between the first baseband phase signal and a second baseband phase signal that is generated by demodulating the modulated output signal with respect to the first baseband phase signal, based on a magnitude of a phase change between adjacent data of the first baseband signal and a predetermined constant~~

demodulating the modulated output signal generated and generating a second baseband phase signal; and

finding a second phase distortion between the first baseband phase signal and the second baseband phase signal, finding a constant using the second phase distortion and one of a

magnitude of a first frequency change and a magnitude of a phase change between adjacent data found based on the first baseband phase signal, finding a third phase distortion using the constant and the magnitude of the phase change between the adjacent data found based on the first baseband phase signal and beforehand compensating the third phase distortion with respect to the first baseband phase signal.